

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/728,529	FUNAKI, TOMOYUKI	
	Examiner	Art Unit	
	ECE HUR	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 07/10/2009.
2.  The allowed claim(s) is/are 1-10.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All      b)  Some\*      c)  None      of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date October 7, 2009 .
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

/William L. Bashore/  
Supervisory Patent Examiner, Art Unit 2175

**EXAMINER'S AMENDMENT AND REASONS FOR ALLOWANCE**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lyle Kimms on October 7, 2009.

**Replace the Claims with the following:**

1. ( Currently Amended) An apparatus for arranging music score displaying data for displaying a music score having measures of music progression on a given music score display area of a display device across a plurality of staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, said apparatus comprising:

an input device which inputs data representing a music performance in a plurality of measures of music progression; and

a controller comprising:

a music score notational element determining device which determines music score notational elements necessary for displaying on said display area a music score for each of said measures based on the input music performance representing data;

a display size setting device which sets, according to input by a user, individual display sizes of said music score notational elements to be displayed on said display area;

a horizontal length determining device which determines a horizontal length of the music score to be displayed on said display area;

a measure apportioning device which calculates, based on the set display sizes, a minimum horizontal length of each of the measures necessary for placing in each of the measures at least one kind of said music score notational elements, which are determined by the music score notational element determining device, without an overlap in a horizontal, and apportions said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed on said display area such that the music score notational elements of each of said measures are placed on the apportioned staff tier in a length of at least said minimum horizontal length, while each of said measures is positioned only on a single staff tier and not spanning across multiple staff tiers; and

a music score display data output device which outputs music score display data for displaying on said display area said music score notational elements on said staff tiers according to the apportionment of the measures by said measure apportioning device, wherein a number of measures displayed on each display area page of the display device is determined based on the set individual display sizes.

2. (Previously Presented) An apparatus as claimed in claim 1, wherein said music score notational elements are notes.

3. (Currently Amended) An apparatus as claimed in claim 1, wherein said display size setting device includes controls to be operated by a user setting the display sizes of said music score notational elements.

4. ( Currently Amended) An apparatus as claimed in claim 1, wherein the music score is displayed on said display area in the plurality of staff tiers on a page or pages, each page having said music score display area, and wherein said controller further comprises:

a vertical length determining device which determines a vertical length of the music score to be displayed on said display area; and

a staff tiers apportioning device which calculates, for each of said staff tiers based on said set display sizes, a maximum vertical length for placing all the music score notational elements in the measures apportioned for the staff tier by said measures apportioning device, and apportions said staff tiers for each page based on said calculated maximum vertical length of each of said staff tiers and said determined vertical length of the music score to be displayed on said display area such that a number of staff tiers is placed within said display area on the page,

wherein said music score display data output device outputs music score display data for displaying on said display area the music score for the page by placing the music score notational elements in the staff tiers for which the measures are

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apportioned by said measure apportioning device according to the apportionment of the staff tiers as apportioned by said staff tiers apportioning device.

5. (Previously Presented) An apparatus as claimed in claim 4, wherein said staff tiers apportioning device calculates said maximum vertical length by calculating the highest position of an notational element and the lowest position of an notational element among said notational elements to be placed in each of said staff tiers.

6. ( Currently Amended) An apparatus for arranging music score displaying data for displaying a music score having measures of music progression on a given music score display area of a display device across a plurality of staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, said apparatus comprising:

an input device which inputs data representing a music performance in a plurality of measures of music progression; and

a controller comprising:

a display size setting device which sets, according to input by a user, individual display sizes of music score notational elements with respect to the measures to be displayed on said display area based on the input music performance representing data;

a measure length calculating device which calculates, based on said set display sizes of the music score notational elements, a minimum horizontal length of each of the measures necessary for placing in each of the measures at least one kind of said

music score notational elements without an overlap in a horizontal direction among said music score notational elements to be displayed on said display area;

a measure apportioning device which apportions the measures for each of said staff tiers so that each of the measures to be displayed on said display area is positioned only on a single staff tier and not spanning across multiple staff tiers; and

a music score display data output device which outputs music score display data for displaying on said display area said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures, wherein a number of measures displayed on each display area page of the display device is determined based on the set individual display sizes.

7. (Previously Presented) An apparatus as claimed in claim 6, wherein the measure apportioning device adjusts said music score display data such that a music score is displayed with the plurality of staff tiers on said display area on a page-by-page basis, and apportions said music score notational elements to be placed in a uniform distribution through the staff tier with respect to the music progression.

8. (Previously Presented) An apparatus as claimed in claim 6, wherein said music score notational elements are notes.

9. (Currently Amended) A computer-readable storage medium storing a computer program executable by an apparatus for arranging music score displaying data for displaying a music score having measures of music progression on a given music score display area of a display device across a plurality of staff tiers, each tier

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containing one or more measures of variable lengths as justified for the display area, the computer program containing instructions for:

inputting data representing a music performance in a plurality of measures of music progression;

determining music score notational elements necessary for displaying on said display area a music score for each of said measures based on the input music performance representing data;

setting, according to input by a user, individual display sizes of said music score notational elements to be displayed on said display area;

determining a horizontal length of the music score to be displayed on said display area;

calculating, based on the set display sizes, a minimum horizontal length of each of said measures necessary for placing in each of the measures at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed on said display area;

apportioning said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed on said display area such that the music score notational elements of each of said measures are placed on the apportioned staff tier in a length of at least said minimum horizontal length, while each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers; and

outputting music score display data for displaying on said display area said music score notational elements on said staff tiers according to the apportionment of the measures made in the apportioning instruction, wherein a number of measures displayed on each display area page of the display device is determined based on the set individual display sizes.

10. (Currently Amended) A computer-readable storage medium storing a computer program executable by an apparatus for arranging music score displaying data for displaying a music score having measures of music progression on a given music score display area of a display device across a plurality of staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, the computer program containing instructions for:

inputting data representing a music performance in a plurality of measures of music progression;

setting, according to input by a user, individual display sizes of music score notational elements with respect to the measures to be displayed on said display area based on the input music performance representing data;

calculating, based on the determined display sizes of the music score notational elements, a minimum horizontal length of each of the measures necessary for placing in each of the measures at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements to be displayed on said display area;

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apportioning the measures for each of said staff tiers so that each of the measures to be displayed on said display area is positioned only on a single staff tier and not spanning across multiple staff tiers; and

outputting music score display data for displaying on said display area said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures, wherein a number of measures displayed on each display area page of the display device is determined based on the set individual display sizes.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ECE HUR whose telephone number is (571) 270-1972. The examiner can normally be reached on Mon-Thurs 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 19, 2008

Ece Hur  
E.H./e.h.

/William L. Bashore/  
Supervisory Patent Examiner, Art Unit 2175